

IN THE CLAIMS

Applicants hereby present the claims, their status in the application, and amendments thereto as indicated:

1. (Previously Presented) A proximity detection circuit comprising:
an asymmetric oscillator circuit having its on-period set by a resistor network comprising a plurality of fixed resistors and at least one variable resistor and having its off-period set by at least one fixed resistor and by at least one first single diode;
a first static protection circuit comprising a first plurality of diodes, one said diode adapted to conduct away from ground, another said diode adapted to conduct toward the supply voltage;
a reset path wherein a second single diode provides a discharge path for an antenna wherein said antenna is discharged to the same voltage for every time period;
the asymmetric oscillator being adapted to send an approximately uniform amount of charge during its on-period to said antenna;
the antenna voltage being decreased when the capacitance of the antenna is increased by a detected object;
a second static protection circuit comprising a second plurality of diodes, one said diode adapted to conduct away from ground, another said diode adapted to conduct toward the supply voltage;
an antenna impedance buffer comprising operational amplifier operated as a unity gain follower with the output terminal of said operational amplifier being fed back to the inverting input terminal;
a voltage peak detector comprising a third single diode, a current-limiting resistor, a peak storage capacitor and a bleed off resistor, said third single diode and said peak storage capacitor being adapted to capture the positive peak of exponential waveforms from the antenna impedance buffer, said current limiting resistor being adapted to